

Petroleum Engineering, Oil and Gas

December 06 -07, 2018 | Dubai, UAE

Biological treatment of oil spill in Iraqi soil

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The present study was conducted to identify isolation of fungi from soil polluted with oil spill from southern area of Iraq. Three species of fungi were isolated from polluted soil, the fungi belongs to: *Aspergillus niger*, *Fusarium sp.* and *Penicillium sp.* Only *A.niger* shows biodegradation ability of crude oil in liquid medium, in addition to test two white rot fungi *Agaricus bisporus* and *Pleurotus ostreatus*. Results revealed that 80% of hydrocarbons PAHs was biodegraded by *A.niger* under 25 °C and 75% in 20 and 30 °C. whereas *Agaricus bisporus* and

Pleurotus ostreatus biodegraded 55% and 50% PAHs under 25 °C and 20,30 °C respectively. Diameter of *A.niger* colony revealed 90 mm. Growth in PA medium enriched with 1% crude oil. The percentage of PAHs degraded by *Agaricus bisporus* and *Pleurotus ostreatus* was 90% in succession with *A.niger* and C/N ratio decreased from 20.5:1 to 18.5:1 in addition to advance of soil biological properties after treatment of soil by white rot fungi.

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